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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/734,774	12/12/2003	Douglas Heintzman	AUS920030915US1	1889
46240 7590 07/31/2007 IBM CORPORATION (WMA) C/O WILLIAMS, MORGAN & AMERSON, P.C. 10333 RICHMOND, SUITE 1100 HOUSTON, TX 77042			EXAMINER LEE, PING	
			ART UNIT 2615	PAPER NUMBER
			MAIL DATE 07/31/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/734,774

Applicant(s)

HEINTZMAN ET AL.

Examiner

Ping Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 June 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1, 10, 13, 29-31 and 36-46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 10, 13, 29-31, 36-46 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1, 13, 29, 30, 38 and 39 are rejected under 35 U.S.C. 102(e) as being anticipated by Rader et al (hereafter Rader) (US 6,944,474).

Regarding claims 1, 13, 29, 30, 38 and 39, Rader discloses a method and a corresponding apparatus comprising:

receiving data indicative of acoustic conditions proximate to an audio presentation device (mobile phone) (102 in Fig. 1);

authenticating a user identification (col. 7, lines 43-44);

receiving data associated with at least one audio profile (100 or 101) associated with the authenticated user identification (col. 7, lines 38-45); and

determining acoustic data to be provided based on at least a portion of the received data indicative of acoustic conditions proximate to the audio presentation device and at least a portion of the data associated with the at least one audio profile (105).

On col. 2, lines 63-64, Rader shows that receiving the data indicative of acoustic conditions proximate to the audio presentation device comprises receiving the data from at least one acoustic detector deployed proximate to the audio presentation device (col. 2, lines 63-64).

On co. 3, lines 10-14, Rader shows that receiving the data indicative of acoustic concision proximate to the audio presentation device comprises providing an acoustic test signal (col. 3, lines 10-14).

3. Claims 29, 30, 38, 39 and 42-45 are rejected under 35 U.S.C. 102(e) as being anticipated by Lemelson et al (hereafter Lemelson) (US 7,110,951 ).

Regarding claims 29 and 38, Lemelson discloses a method and a corresponding apparatus, comprising:

- receiving data indicative of acoustic conditions proximate to an audio presentation device (TV) (24 in Fig. 2);

- receiving data indicative of a detected acoustic test signal (user's response);

- receiving data indicative of acoustic conditions proximate to an audio presentation device (TV) (24 in Fig. 2);

- receiving data associated with at least one audio profile (26); and

- determining acoustic data to be provided based on at least a portion of the received data indicative of acoustic conditions proximate to the audio presentation device, at least a portion of the data indicative of a detected acoustic test signal (user's response), and at least a portion of the data associated with the at least one audio profile (by 14).

Regarding claims 30 and 39, Lemelson shows that the test signal is provided (col. 5, lines 24-30).

Regarding claims 42, 44 and 45, Lemelson further shows the step of receiving data (by 14) associated with at least one audio profile (from 26) and a device profile (from 28, 30 or 32).

Regarding claim 43, Lemelson discloses the capability, a characteristic, or a capability and a characteristic of a display device (col. 11, lines 26-51).

***Claim Rejections - 35 USC § 103***

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 1, 10, 13, 36 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lemelson.

Regarding claims 1, 10, 13, 36 and 37, Lemelson fails to show that the user's identification is being authenticated. Lemelson teaches that the hearing test could be performed locally and the hearing profile can be stored and recalled later. Since the television as disclosed in Lemelson is shared by a plurality of users, someone other than the user can access the hearing profile if there is no restriction on who can recall the hearing profile. User B might accidentally erase/ modify the hearing file of User A. Thus, It would have been obvious to one of ordinary skill in the art to modify Lemelson

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by providing some kind of protection, such as authenticating the user, to prevent other people from accidentally erase/modify the hearing profile, or simply for privacy reason.

6. Claims 31 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lemelson in view of Feezor et al (hereafter Feezor) (US 3,808,354).

Regarding claims 31 and 40, Lemelson fails to show receiving a portion of the acoustic test signal from an acoustic detector. Feezor teaches that it is important to measure the acoustic test signal at the testing location in order to determine whether the testing result is valid. Thus, it would have been obvious to one of ordinary skill in the art to modify Lemelson in view of Feezor by receiving the acoustic test signal in order to validate the hearing test result.

7. Claim 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lemelson in view of Feezor as applied to claim 40 above, and further in view of Hotvet (US 5,550,923).

Regarding claim 41, Lemelson teaches how to use adaptive filter to obtain the optimal filter coefficient to cancel noise and enhance the speech; however, it fails to clearly discuss the signal-to-noise ratio is being used for enhancing the speech. Hotvet teaches how to use the SNR to determine the optimal hearing. Thus, it would have been obvious to one of ordinary skill in the art to further modify Lemelson and Feezor in view of Hotvet by utilizing the SNR in combination with the adaptive filter in order to enhance the speech intelligibility.

8. Claim 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lemelson in view of Rader.

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Regarding claim 46, Lemelson fails to show that the processor-based device is located remotely from the audio presentation device. Lemelson's device is located with the television. Rader teaches that the processor could be located remotely from the audio presentation device, so the processor could be shared by a plurality of users and audio presentation device, and the audio presentation device could be made with less cost and size. Thus, it would have been obvious to one of ordinary skill in the art to modify Lemelson in view of Rader by using a remotely located processor to process the hearing profile and ambient noise condition and so on in order to reduce the cost of the television and its size as well.

### ***Response to Arguments***

9. Applicant's arguments filed 6/19/07 have been fully considered but they are not persuasive.

Applicant argued that Rader fails to disclose the step of authentication of a user identification. This is not persuasive. The term "PIN", well known to general public, has a meaning of providing restricted and protected access to an account. For example, a user needs a PIN in order to access his/her account using ATM. Thus, Rader discloses the claimed limitation.

Applicant argued that Lemelson fails to show the step of receiving data indicative of a detected acoustic test signal. This is not true. The system in Lemelson receives the responses from the user indicative of the detected acoustic test signal.

Lemelson also discloses the device profile on col. 11.



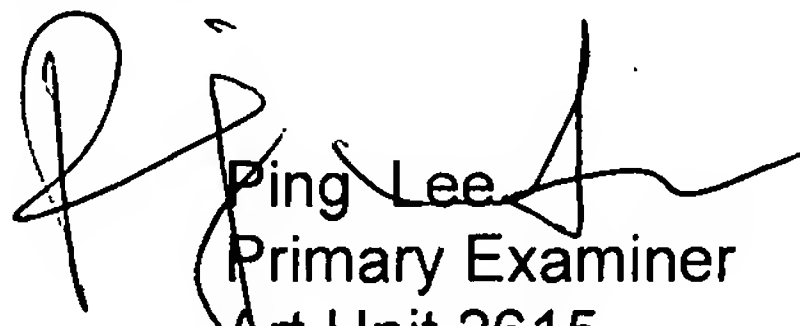
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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ping Lee whose telephone number is 571-272-7522.

The examiner can normally be reached on Monday, Wednesday and Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian C. Chin can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Ping Lee  
Primary Examiner  
Art Unit 2615

pwl